CLAIMS

We claim:

1. A method of sending telephony traffic over a packet-switched network comprising:

creating a fixed destination port for telephony data signaling at a destination;

creating a fixed destination port for call control signaling at the destination;

receiving at least one media stream at the fixed destination port for telephony data signaling wherein the at least one media stream originate from at least one source;

commanding the source of each media stream to provide an identifier unique to each media stream arriving at the destination from the source wherein no two media streams arriving at the destination have identical identifiers;
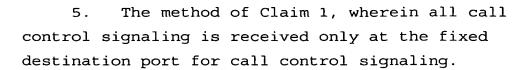
identifying the at least one media stream by the unique identifier provided by the source.

2. The method of Claim 1, wherein the at least one media stream is comprised of a plurality of packets.

3. The method of Claim 1, wherein the unique identifier for each media stream is communicated to the destination by each source over call control signaling.

4. The method of Claim 1, wherein all telephony data signaling is received only at the fixed destination port for telephony data signaling.

5. The method of Claim 1, wherein all call control signaling is received only at the fixed destination port for call control signaling.

5   6. The method of Claim 1, wherein the unique identifier is a source port number of the media stream.

7. The method of Claim 1, wherein the unique identifier is an IP address of the source.

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8. The method of Claim 1, wherein the unique identifier is further comprised of a source port number of the media stream and an IP address of the source.

15   9. A method of limiting telephony data traffic to a single hole in a firewall comprising:
        creating a fixed destination port for telephony data traffic at a destination;
        opening a first hole in a firewall corresponding
20   to the fixed destination port for telephony data traffic;
        creating a fixed destination port for call control traffic at the destination;
        opening a second hole in the firewall
25   corresponding to the fixed destination port for call control traffic;
        receiving a plurality of media streams at the fixed destination port for telephony data traffic wherein the media streams originate from at least one
30   source;
        commanding the source of each media stream to provide a unique identifier for each media stream arriving at the destination from each source wherein no

two media streams arriving at the destination from the at least one source have identical identifiers;

identifying each media stream by the unique identifier provided by the source of each media stream.

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10. The method of Claim 9, wherein each media stream is comprised of a plurality of packets.

11. The method of Claim 9, wherein the unique

10 identifier is communicated to the destination by the source over call control traffic.

12. The method of Claim 9, wherein all telephony data traffic is received only at the fixed destination

15 port for telephony data traffic.

13. The method of Claim 9, wherein all call control traffic is received only at the fixed destination port for call control traffic.

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14. The method of Claim 9, wherein the unique identifier is a source port number of the media stream.

15. The method of Claim 9, wherein the unique

25 identifier is an IP address of the source.

16. The method of Claim 9, wherein the unique identifier is further comprised of a source port number of the media stream and an IP address of the source.

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17. The method of Claim 9, wherein the unique identifier is a source port number of the media stream.

18.   The method of Claim 9, wherein the unique identifier is an IP address of the source.

19.   The method of Claim 9, wherein the unique
5   identifier is further comprised of a source port number of the media stream and an IP address of the source.

20.   A method of communicating, comprising:
        receiving a plurality of packets relating to a
10   plurality of media streams at a common destination port wherein said plurality of media streams are received through a first hole in a firewall; and
        separating the packets into individual media streams.
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21.   The method of Claim 20, wherein the first hole is the only hole in the firewall for receiving said plurality of media streams

20   22.   The method of Claim 20, wherein each media stream further comprises audio traffic.

23.   The method of Claim 20, wherein each media stream further comprises video traffic.
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24.   The method of Claim 20, wherein each media stream further comprises a mixture of audio and video traffic.

30   25.   The method of Claim 20, further comprising sending a plurality media streams through the first hole in the firewall to the common destination port.

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26. The method of Claim 20, further comprising
sending control data through a second hole in the
firewall.

5   27. The method of Claim 20, further comprising
identifying each packet.

28. The method of Claim 20, further comprising
associating each packet with a related media stream.

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29. The method of Claim 20, wherein the
destination port is fixed.

30. The method of Claim 20, further comprising a

15 computer readable storage medium encoded with
instructions to practice the method of Claim 20.

31. The method of Claim 20, further comprising a
signal encoded in a carrier medium encoded with

20 instructions to practice the method of Claim 20.

32. The method of Claim 20, further comprising:
using a source port to form the association
between the packet and the media stream.

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33. The method of Claim 20, further comprising:
using a source IP address to form the association
between the packet and the media stream.

30   34. The method of Claim 20, further comprising:
using a field in an RTP header of each packet to
form the association between the packet and the media
stream.

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35.   A method of communicating through only two holes in a firewall protecting a private branch exchange comprising:

    sending a media stream from a source private
5 branch exchange through a first hole in a firewall at a fixed destination port for media streams at a destination private branch exchange;

    sending a first control stream from the source private branch exchange through a second hole in the
10 firewall to a fixed destination port for control streams at the destination private branch exchange;

    sending a second media stream from the destination private branch exchange through a first hole in a firewall at the source private branch exchange to a
15 fixed destination port for media streams at the source private branch exchange;

    sending a second control stream from the destination private branch exchange through a second hole in the firewall at the source private branch
20 exchange to a fixed destination port for control streams at the source private branch exchange.

36.   The method of Claim 35 wherein each media stream is communicated by a UDP protocol.

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37.   The method of Claim 35 wherein each control stream is communicated by a TCP protocol.

38.   The method of Claim 35 wherein the source of
30 each media stream from source branch exchanges is uniquely identified such that the destination branch exchange sends a media stream to the uniquely identified source branch exchange in response to the

media stream sent from the uniquely identified source
branch exchange.

39.   A method of communicating through only two
holes in a firewall comprising:
sending a plurality of media streams from a
plurality of source private branch exchanges through a
first hole in a firewall to a fixed destination port
for media streams at a destination private branch
exchange;
sending a plurality of control streams from the
plurality of source private branch exchanges through a
second hole in the firewall to a fixed destination port
for control streams at the destination private branch
exchange;
sending a plurality of media streams from the
destination private branch exchange to a fixed
destination port for media streams at each source
private branch exchange;
sending a plurality of control streams from the
destination private branch exchange to a fixed
destination port for control streams at each source
private branch exchange.

40.   The method of Claim 39 wherein the media
stream is communicated by a UDP protocol to the fixed
destination port for media streams.

41.   The method of Claim 39 wherein the control
stream is communicated by a TCP protocol to the fixed
destination port for control streams.

42.   The method of Claim 39 wherein the source of
each media stream from each of the plurality of source

branch exchanges is uniquely identified such that the
destination branch exchange sends a media stream to
each of the uniquely identified source branch exchanges
in response to the media stream sent from each of the
5   uniquely identified source branch exchanges.

43.   A method of sending telephony traffic over
Ethernet comprising:
creating a fixed destination port for telephony
10   data traffic at a plurality of destinations;
creating a fixed destination port for call control
traffic at a plurality of destinations;
receiving at least one media stream at the fixed
destination port for telephony data traffic at a first
15   one of the plurality of destinations;
receiving at least one media stream at the fixed
destination port for telephony data traffic of a second
one of the plurality of destinations;
receiving at least one call control stream at the
20   fixed destination port for call control traffic at a
first one of the plurality of destinations;
receiving at least one call control stream at the
fixed destination port for call control traffic of a
second one of the plurality of destinations;
25   commanding the source of each media stream to
provide a unique identifier for the media stream
generated by the source to the destination the media
stream is received by; and
identifying each media stream by the unique
30   identifier provided by the source wherein no two media
streams arriving at any one destination have identical
identifiers.

44.   The method of Claim 43, wherein each media stream is comprised of a plurality of packets.

45.   The method of Claim 43, wherein the unique identifier for each media stream is communicated to the destination by each source over the call control stream.

46.   The method of Claim 43, wherein each media stream is received only at the fixed destination port for telephony data traffic at the destination the media stream is sent to.

47.   The method of Claim 43, wherein each call control stream is received only at the fixed destination port for call control traffic at the destination the call control stream is sent to.

48.   A system for communicating through a firewall, comprising:

       means for receiving a plurality of packets relating to a plurality of media streams at a common destination port wherein said plurality of media streams are received through a first hole in a firewall; and

       means for separating the packets into individual media streams.

49.   The system of Claim 48, wherein the first hole is the only hole in the firewall for receiving said plurality of media streams

50.   The system of Claim 48, wherein each media stream further comprises audio traffic.

51.   The system of Claim 48, wherein each media stream further comprises video traffic.

5   52.   The system of Claim 48, wherein each media stream further comprises a mixture of audio and video traffic.

53.   The system of Claim 48, further comprising a
10   means for sending a plurality media streams through the first hole in the firewall to the common destination port.

54.   The system of Claim 48, further comprising a
15   means for sending control data through a second hole in the firewall.

55.   The system of Claim 48, further comprising a means for identifying each packet.

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56.   The system of Claim 48, further comprising associating each packet with a related media stream.

57.   The system of Claim 48, wherein the
25   destination port is fixed.

58.   The system of Claim 48, further comprising:
       a means for using a source port to form the association between the packet and the media stream.

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59.   The system of Claim 48, further comprising:
       a means for using a source IP address to form the association between the packet and the media stream.

60.   The system of Claim 48, further comprising:

a means for using a field in an RTP header of each packet to form the association between the packet and the media stream.

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61.   A system for sending and receiving communications through a firewall, comprising:

a first plurality of handsets for initiating a communication;

10   a second plurality of handsets for responding to a communication;

a communications network for transporting communications;

at least one first switch for directing a

15   communication comprised of a plurality of media streams and control signals to at least one second switch wherein said at least one first switch is connected to said first plurality of handsets and said at least one second switch is connected to said second plurality of

20   handsets, wherein said at least one second switch receives a plurality of packets relating to the plurality of media streams at a common destination port and separate the packets into individual media streams; and

25   a firewall protecting access to said at least one second switch wherein said plurality of media streams are received through a first hole in said firewall.

62.   The system of Claim 61, wherein the first

30   hole is the only hole in the firewall for receiving said plurality of media streams

63.   The system of Claim 61, wherein each media stream further comprises audio traffic.

64.   The system of Claim 61, wherein each media stream further comprises video traffic.

5   65.   The system of Claim 61, wherein each media stream further comprises a mixture of audio and video traffic.

66.   The system of Claim 61, wherein said at least

10   one first switch sends the plurality media streams through the first hole in the firewall to the common destination port.

67.   The system of Claim 61, wherein said at least

15   one first switch sends control data through a second hole in the firewall.

68.   The system of Claim 61, wherein the at least one second switch identifies each packet.

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69.   The system of Claim 61, wherein the at least one second switch associates each packet with a related media stream.

25   70.   The system of Claim 61, wherein the common destination port is fixed.

71.   The system of Claim 61, wherein a source port on the at least one first switch is used to form the

30   association between the packet and the media stream.

72.   The system of Claim 61, wherein a source IP address of the at least one first switch is used to

form the association between the packet and the media stream.

73.   The system of Claim 61, wherein a field in an
RTP header of each packet is used to form the
association between the packet and the media stream.